

WHAT IS CLAIMED IS:

1. A cutting instrument, comprising
an outer member having a cutting edge; and
a helical knife coupled to the outer member for rotation relative to the outer member,
at least a portion of the helical knife extending distally beyond the cutting edge of the outer
member.
2. The instrument of claim 1, further comprising
an inner member received within the outer member, the helical knife being located at
a distal end of the inner member.
3. The instrument of claim 2 wherein a clearance between the inner member and the
outer member is in the range of about 0.0005 to 0.002 inches.
4. The instrument of claim 2 wherein the inner member defines an aspiration opening,
the aspiration opening being located at a proximal end of the helical knife.
5. The instrument of claim 1 wherein the helical knife includes a helical edge and a
helical channel.
6. The instrument of claim 5 wherein the helical channel has a proximal end, a distal
end, and a pitch, the pitch of the helical channel increasing from the distal end to the
proximal end.
7. The instrument of claim 5 wherein the helical channel terminates in an opening
through a wall of the inner member.
8. The instrument of claim 1, further comprising a hub coupling the inner member to the
outer member.

1 9. The instrument of claim 1 wherein the outer member defines a fluid ingress opening
2 through a wall of the outer member in a distal region of the outer member.

1 10. The instrument of claim 1 wherein the cutting edge is located at a distal end of the
2 outer member.

1 11. The instrument of claim 1 wherein the outer member tapers to the cutting edge.

1 12. The instrument of claim 1 wherein the cutting edge comprises a circumferential
2 cutting edge.

1 13. The instrument of claim 12 wherein the cutting edge is circular in shape.

1 14. The instrument of claim 1 wherein the cutting edge is part-circumferential.

1 15. The instrument of claim 14 wherein the cutting edge is circular in shape.

1 16. The instrument of claim 14 wherein the cutting edge is oblong in shape.

1 17. The instrument of claim 1 wherein the outer member includes a shield portion
2 extending distally from the cutting edge.

1 18. A method of cutting, comprising
2 slicing into tissue with a helical knife to draw tissue proximally toward a cutting
3 portion; and
4 cutting the tissue with the cutting portion.

1 19. The method of claim 18, wherein cutting the tissue comprises cutting the tissue into
2 discrete pieces.

1 20. The method of claim 18, further comprising providing the helical knife on an inner
2 member and the cutting portion on an outer member.

1 21. The method of claim 20, further comprising transporting the cut tissue along a helical
2 channel defined by the helical knife.

1 22. The method of claim 21, further comprising aspirating the cut tissue through a hollow
2 interior in the inner member.

1 23. The method of claim 22 wherein aspirating the cut tissue comprises aspirating the cut
2 tissue through an opening in a wall of the inner member.

1 24. The method of claim 20, further comprising aspirating fluid through an opening in the
2 outer member.

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